SPEC® CINT2006 Result

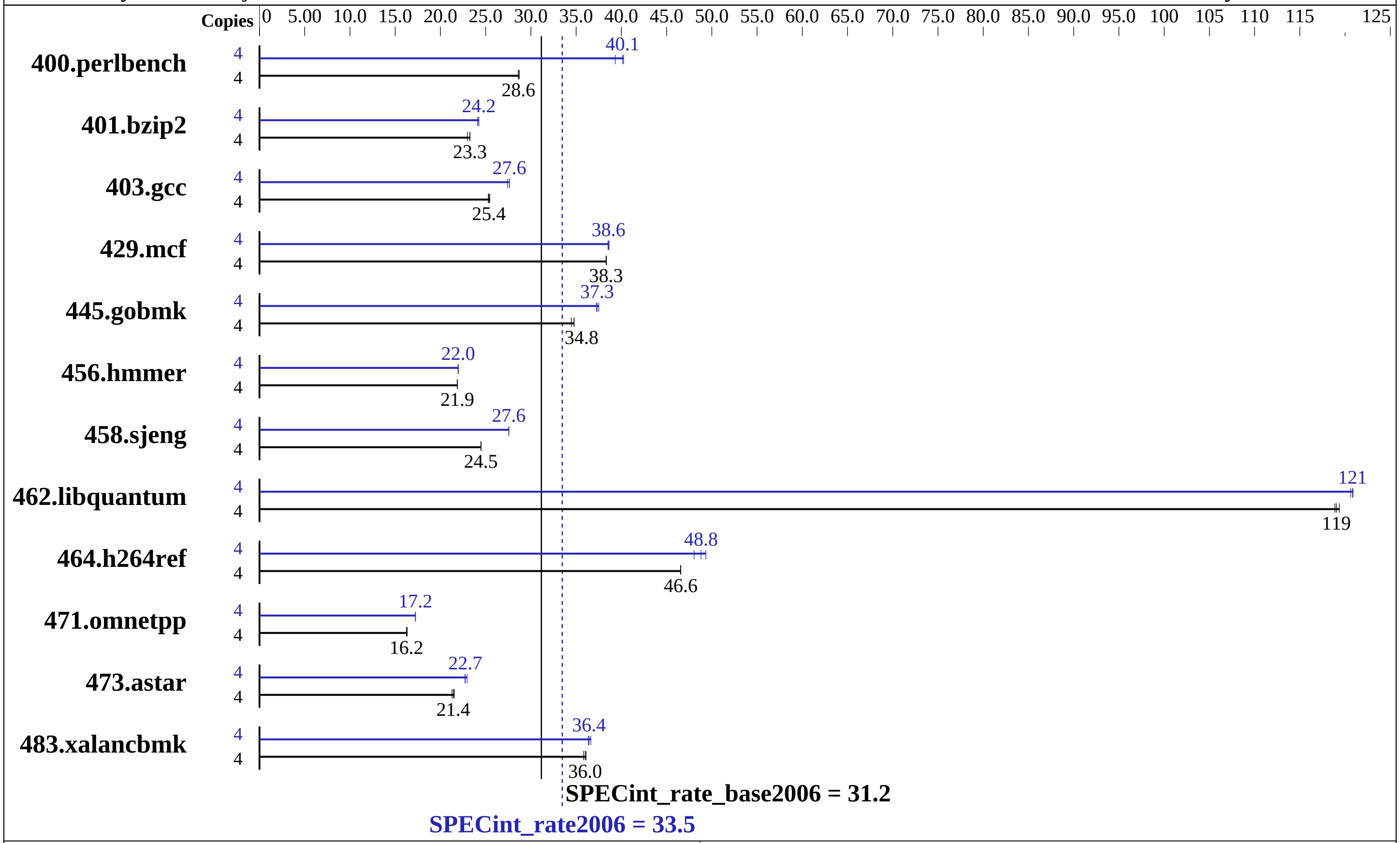
Fujitsu

Fujitsu SPARC Enterprise M3000

SPECint®_rate2006 = 33.5

SPECint_rate_base2006 = 31.2

CPU2006 license:	19	**Test date:**	Nov-2009
Test sponsor:	Fujitsu	**Hardware Availability:**	Jan-2010
Tested by:	Fujitsu	**Software Availability:**	Oct-2009



Hardware

CPU Name:	SPARC64 VII
CPU Characteristics:	2 cores
CPU MHz:	2750
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 2 threads/core
CPU(s) orderable:	1 chip
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	5 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8 x 2 GB), 2-way interleaved
Disk Subsystem:	1 x Seagate Savvio 10K.2 (146 GB 10,000 RPM SAS)
Other Hardware:	None

Software

Operating System:	Solaris 10 10/09 with patch 119963-18
Compiler:	Sun Studio 12 Update 1
Auto Parallel:	No
File System:	ufs
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	1361	28.7	**1365**	**28.6**	1366	28.6	4	994	39.3	971	40.2	**974**	**40.1**
401.bzip2	4	1659	23.3	**1659**	**23.3**	1679	23.0	4	1591	24.3	1601	24.1	**1592**	**24.2**
403.gcc	4	**1270**	**25.4**	1273	25.3	1265	25.5	4	1174	27.4	1165	27.6	**1166**	**27.6**
429.mcf	4	**952**	**38.3**	952	38.3	951	38.4	4	947	38.5	**946**	**38.6**	944	38.6
445.gobmk	4	**1207**	**34.8**	1206	34.8	1218	34.5	4	**1124**	**37.3**	1119	37.5	1126	37.3
456.hmmer	4	1706	21.9	1706	21.9	**1706**	**21.9**	4	1698	22.0	**1698**	**22.0**	1701	21.9
458.sjeng	4	1978	24.5	**1977**	**24.5**	1977	24.5	4	**1756**	**27.6**	1756	27.6	1756	27.6
462.libquantum	4	**696**	**119**	697	119	694	119	4	**686**	**121**	686	121	687	121
464.h264ref	4	**1901**	**46.6**	1901	46.6	1901	46.6	4	**1814**	**48.8**	1794	49.3	1843	48.0
471.omnetpp	4	1531	16.3	**1539**	**16.2**	1539	16.2	4	**1450**	**17.2**	1449	17.2	1450	17.2
473.astar	4	**1310**	**21.4**	1320	21.3	1304	21.5	4	**1235**	**22.7**	1224	22.9	1236	22.7
483.xalancbmk	4	**766**	**36.0**	770	35.8	765	36.1	4	**758**	**36.4**	753	36.6	759	36.4

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Compiler Invocation Notes

```
Sun Studio compiler patches are available at
   http://developers.sun.com/sunstudio/downloads/patches/ss12u1_patches.jsp
```

Submit Notes

```
The config file option 'submit' was used.  Processes were assigned to
specific processors using 'pbind' commands.  The list of processors to use
was provided in the 'BIND' variable, to generate the pbind commands.
(For details, please see the config file.)
```

Operating System Notes

```
Shell Environments:

    ulimit -s 131072 was used to limit the space consumed
    by the stack.(making more space available for the heap)

System Tunables:
(/etc/system parameters)

    tune_t_fsflushr=10
       Controls how many seconds elapse between runs of the
       page flush daemon, fsflush.
    autoup=600
       Causes pages older than the listed number of seconds to
       be written by fsflush.
```

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Operating System Notes (Continued)

```
    bufhwm=3000
       Memory byte limit for caching I/O buffers.
    segmap_percent=1
       Set maximum percent memory for file system cache.

Other System Settings:

    The webconsole service was turned off using svcadm disable webconsole.
```

Platform Notes

```
Memory is 2-way interleaved by filling all slots with the same
capacity DIMMs.

This result is measured on a Fujitsu SPARC Enterprise M3000 Server.
Note that the Fujitsu SPARC Enterprise M3000 and Sun SPARC Enterprise
M3000 are electrically equivalent.
```

Base Compiler Invocation

C benchmarks:
`cc`

C++ benchmarks:
`CC`

Base Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_SPARC
403.gcc: -DSPEC_CPU_SOLARIS
462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Base Optimization Flags

C benchmarks:
```
-fast -fma=fused -xipo=2 -xpagesize=4M -xarch=sparcfmaf
-xalias_level=std -M /usr/lib/ld/map.bssalign -ll2amm
```

C++ benchmarks:
```
-library=stlport4 -fast -fma=fused -xipo=2 -xpagesize=4M
-xarch=sparcfmaf -xdepend -xalias_level=compatible
-M /usr/lib/ld/map.bssalign -lfast
```

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Base Other Flags

C benchmarks:
-xjobs=2 -V -#

C++ benchmarks:
-xjobs=2 -verbose=diags,version

Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_SPARC
403.gcc: -DSPEC_CPU_SOLARIS
462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Peak Optimization Flags

C benchmarks:

400.perlbench: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-M /usr/lib/ld/map.bssalign -fma=fused -xipo=1
-xalias_level=std -xrestrict -xprefetch=no%auto -Xc
-lfast

401.bzip2: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-fma=fused -xalias_level=strong -xunroll=2

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xipo=2 -xalias_level=std -xprefetch=no -xunroll=2
-ll2amm

429.mcf: -fast -xpagesize=4M -fma=fused -xipo=2 -xalias_level=std
-xunroll=4 -ll2amm

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Peak Optimization Flags (Continued)

445.gobmk: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -fma=fused -xalias_level=std -xrestrict -xunroll=3

456.hmmer: -fast -xpagesize=4M -fma=fused -xipo=1 -xalias_level=std -ll2amm

458.sjeng: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -fma=fused -xipo=2 -xprefetch=latx:0.5 -xunroll=2 -ll2amm

462.libquantum: -fast -xpagesize=4M -fma=fused -xipo=2 -xprefetch=no -xalias_level=std -xunroll=5 -lbsdmalloc

464.h264ref: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -M /usr/lib/ld/map.bssalign -fma=fused -xipo=1 -xO4 -xalias_level=std -xprefetch=no -xunroll=5 -ll2amm

C++ benchmarks:

471.omnetpp: -library=stlport4 -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xalias_level=compatible -fma=fused -xipo=2 -xprefetch_level=2 -Qoption cg -Qlp-av=0 -xunroll=3 -lfast

473.astar: -library=stlport4 -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xalias_level=compatible -M /usr/lib/ld/map.bssalign -fma=fused -xipo=2 -xprefetch=no%auto -xdepend -xunroll=2 -lfast -lbsdmalloc

483.xalancbmk: -library=stlport4 -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xalias_level=compatible -fma=fused -xipo=2 -xprefetch_level=2 -xunroll=2 -lfast

Peak Other Flags

C benchmarks:
-xjobs=2 -V -#

C++ benchmarks:
-xjobs=2 -verbose=diags,version

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The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12-12u1-and-gccfss4.2.r4.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12-12u1-and-gccfss4.2.r4.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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